

CLAIMS

1. A substrate holder comprising:
 - a fixed portion configured and operative to be attached to a precision stage;
 - a movable portion operably coupled to said fixed portion and selectively
5 movable relative thereto;
 - a securing mechanism configured and operative to secure a substrate at a
predetermined location relative to said movable portion; and
 - an actuator mechanism operative to provide movement of said movable
portion relative to said fixed portion.
- 10 2. The substrate holder of claim 1 wherein said actuator mechanism is operative
to translate said movable portion in one dimension relative to said fixed portion.
3. The substrate holder of claim 1 wherein said actuator mechanism is operative
to translate said movable portion in two dimensions relative to said fixed portion.
4. The substrate holder of claim 1 wherein each of said fixed portion and said
15 movable portion comprises a respective aperture cooperating to form a window in
said holder, and wherein said securing mechanism is operative to secure the substrate
at a selected location relative to the window.
5. The substrate holder of claim 1 further comprising an indexed reference
system.
- 20 6. The substrate holder of claim 5 wherein said indexed reference system
comprises:
 - a pointer; and
 - a plurality of reference indicia, each corresponding one of said plurality of
reference indicia associated with a corresponding area of the substrate.
- 25 7. The substrate holder of claim 6 wherein said indexed reference system is
operably coupled to said actuator mechanism and wherein selective alignment of
ones of said plurality of reference indicia with said pointer translates the
corresponding area of the substrate within a precision travel range of the stage.
8. The substrate holder of claim 1 wherein said actuator mechanism is motor
30 driven.

9. A precision travel staging system comprising:
a precision stage;
a substrate holder having a fixed portion configured and operative to be attached to said stage, and a movable portion operably coupled to said fixed
5 portion and selectively movable relative thereto;
a securing mechanism configured and operative to secure a substrate at a predetermined location relative to said movable portion of said substrate holder; and
an actuator mechanism operative to provide movement of said movable
10 portion relative to said fixed portion.
10. The staging system of claim 9 wherein said fixed portion of said substrate holder is integrated with said stage.
11. The staging system of claim 9 wherein a fixed position of said fixed portion of said substrate holder is selectively alterable relative to said stage.
- 15 12. The staging system of claim 9 wherein each of said fixed portion and said movable portion comprises a respective aperture cooperating to form a window in said substrate holder, and wherein said securing mechanism is operative to secure the substrate at a selected location relative to the window.
13. The staging system of claim 9 further comprising an indexed reference
20 system.
14. The staging system of claim 13 wherein said indexed reference system comprises:
a pointer; and
a plurality of reference indicia, each corresponding one of said plurality of
25 reference indicia associated with a corresponding area of the substrate.
15. The staging system of claim 14 wherein said indexed reference system is operably coupled to said actuator mechanism and wherein selective alignment of ones of said plurality of reference indicia with said pointer translates the corresponding area of the substrate within a precision travel range of said stage.

16. The staging system of claim 9 wherein said actuator mechanism is motor driven.
17. A method of selectively fastening a substrate to a limited travel staging system; said method comprising:
- 5 attaching a fixed portion of a substrate holder to a precision stage;
 coupling a movable portion of the substrate holder to the fixed portion; and
 securing a substrate in a predetermined position relative to the movable portion.
18. The method of claim 17 wherein said securing comprises utilizing a spring
10 biased element.
19. The method claim 17 further comprising indexing the substrate holder such that each of a plurality of reference indicia on an index is associated with a corresponding area of the substrate.
20. The method of claim 19 wherein said indexing enables selective alignment of
15 ones of said plurality of reference indicia with a pointer to translate a corresponding area of the substrate within a precision travel range of the stage.